UNITED STATES PATENT AND TRADEMARK OFFICE

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ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER
DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02 May 2007</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-39</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-39</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-39 are pending in this application.

2. Claim 39 was added by the amendment filed on May 2, 2007.

Response to Arguments

3. The applicant has amended independent claims 1, 12, 19, and 29 to recite that "each piece of content is associated with parameters including a expiration time and a deletion priority value" (e.g. claim 1, lines 5-7). Applicant argues that a combination Aubault (US Pub. No. 2005/0086318) and Bereznyi (US Pat. 6,449,695), even if it did disclose elements of the amended claims (specifically, Bereznyi teaching a client expiration time), would not be apparent one skilled in the art as they would not have been motivated to combine the teachings to disclose the claimed invention. The applicant comes to this conclusion based upon a quoted portion of the MPEP (2143.01) that states, "[a] proposed modification cannot change the principle of operation of a reference" to support a 103 rejection. Thereby, additionally alleging that by combining Bereznyi with the primary reference Aubault, the principle of operation of Aubault would change.

4. The examiner disagrees. The new rejections with the combination of Aubault and Bereznyi follow. The principle operation of Aubault is to provide by means of a method for the transmission of data, called objects, through at least one communication network between a server and at least one client terminal, at

least one cache memory that will store at least some of the said objects

transmitted by the said server being associated with at least one of the said client

terminals within the said network (Aubault, [0032]) and thereby providing a

technique for transmission of information necessary for the real time display of

large volumes of data from a server to a client terminal, minimizing transfers

between the server and the client terminal (Aubault, [0027]). The principle

functionality and objectives will not change the principle operation of Aubault if

the Bereznyi's client expiration time is added to Aubault. The applicant has relied

upon exemplary embodiments of Aubault to draw the improper conclusion that

the combination Bereznyi would change the principle operation of Aubault. One

of ordinary skill in the art would look at the underlying structure that provides the

explicit function of the exemplary embodiments are would thus have more than

amble reason to combine the references.

5. The applicant further argues, with respect to claims 1, 12, 19, 29, and 39, that

Aubault does not teach or suggest a terminal sending a status of content stored

in memory to a remote network entity, the network entity being configured to

control storage of content in memory of the terminal based on the status and

parameters associated with the content. More specifically, the applicant argues

that the state of the contents of the cache memory is not sent from the terminal to

the server, and, rather, Aubault discloses that the state information is sent from a

proxy server located between the server and the client.

6. The examiner disagrees. Aubault additionally discloses that the functionality of

the proxy server can be carried out by the server ([0113], lines 1-7) and thereby

the state of the contents of the cache memory is sent from the terminal to the

server. Furthermore, even in the exemplary embodiment with the proxy server,

the state of the contents of the cache memory is sent from the terminal to the

server, just not directly, but via the proxy server.

7. The applicant further argues, with respect to dependent claims 14, 21, and 31,

that the combination of Aubault and Bereznyi do not teach the deletion of content

with a higher deletion priority from among that content whose client expiration

time has been exceeded.

8. The examiner disagrees. When combining Aubault and Bereznyi the applicant

alleges that at best they teach the separate deletion of less relevant objects, as

necessary, and the additional deletion of older objects whose expiration time has

been exceeded. One of ordinary skill in the art however would view the recited

combination as obvious knowing that multiple independent deleting algorithms

would consume processor cycles (Bereznyi, column 12, lines 9-11) thereby

slowing the system overall. Further evidence is given that this is the obvious

combination as Bereznyi teaches that in order to speed up operation of the

cache, deletion algorithms should only be run when the cache is near capacity

(column 12, 11-13), therefore it would be clear to run separate algorithms as a combination. Therefore, it would be clear, given the teachings of Aubault and Bereznyi that the obvious combination would include combining the two independent deletion algorithms into, i.e. taking any object that has expired (Bereznyi, column 11, lines 44-51) and deleting those that have the lowest relevance criteria (Aubault, [0076]-[0077]).

9. The applicant further argues, with respect to dependent claims 25 and 35, that Bereznyi does not teach multiple expiration times associated with a piece of content.

10. The examiner disagrees. While Bereznyi alone may not teach multiple expiration times, (which the claim does not even explicitly recite, but rather recites a client and a server expiration time with no clear distinction (aside from the names "client" and "server") between the two with each in fact having the same claimed functionality) when combined with Aubault this is obvious as Aubault's system has both the content in the client's cache, and therefore a client expiration time, and the server's list with the same content with an associated server expiration time ([0113]).

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

12. Claims X-Z are rejected under 35 U.S.C.101 because the claimed invention is directed to non-statutory subject matter. As provided on pages AA-BB of the specification, a computer readable medium includes transmission media, including coaxial cables, copper wire, fiber optics, wires that constitute a bus, and acoustic and light waves that are generated during radio wave communications. Claims drawn to components involving signals encoded with functional descriptive material do not fall within any of the categories of statutory subject matter as set forth in 35 U.S.C. 101, and are therefore, ineligible for protection.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aubault (US Pub. No. 2005/0056318) and Deo et al. (US Pat. 6,157,982), hereafter "Deo," in further view of Bereznyi et al. (US Pat. 6,449,695), hereafter "Bereznyi."

15. As to claim 12, Aubault discloses a terminal (Fig. 2, label 2) for controlling storage of content in memory, the terminal comprising:

a memory configured to store at least one piece of content ([0033] the cache (memory) of the client (terminal) stores objects (content)), wherein each piece of content is associated with parameters including a deletion priority value ([0076]-[0077], relevance criterion reads on "a deletion priority value", in that the object with the lowest relevance criterion will be the first to be deleted); and

a controller configured to send, to a network entity located remote form the terminal a status of the at least one piece of content stored in memory ([0053]-[0054], the client (terminal) inherently responds to the state requests with state information (status), furthermore, this occurs during the initialization phase [0054], as initial display information (initial status) is transmitted from the client (terminal) to the server) such that storage of the at least one piece of content in memory can be controlled based upon the status and the at least one parameter ([0074]-[0077], client (terminal) receives new object and it is stored or discarded (controlled) based upon relevance criterion).

Aubault does not explicitly disclose the network entity being configured to at least partially control storage of content in memory of the terminal. Aubault's server (the network entity) only controls the storage of content indirectly by

determining what objects (content) to send to the client (terminal). The client (terminal) then controls what is placed in memory.

· However, Deo discloses a network entity that controls the storage of content in the memory of a terminal (column 3, lines 8-25, an external computer (a network entity) remotely manages memory on a portable information device (terminal)).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Deo in order to decrease the processing burden of a terminal that has less processing power available than a computer it is networked with (Deo, column 2, line 65-column 3, line 4).

Further, Aubault and Deo do not explicitly disclose where the content being additionally associated with a client expiration time and the storage of the content being based upon such.

However, Bereznyi discloses content being additionally associated with a client expiration time and the storage of the content being based upon such (Fig. 6, labels 216 and 218 and column 11, lines 44-51).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Aubault and Deo with Bereznyi

in order to give Aubault and Deo's combined system more flexibility in how it

manages the terminal's memory.

16. As to claims 1, 19, 29, and 39, they are rejected by the same rationale set forth in

claim 12's rejection.

17. As to claims 2, 13, 20 and 30, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claims 1, 12, 19, and 29, and further

disclose, and further disclose the memory is configured to store the at least one

piece of content such that it can be determined if the memory has sufficient

storage capacity for at least one subsequent piece of content (Aubault, [0075]),

and if the memory does not have sufficient storage capacity (Aubault, [0076]), the

controller is configured to delete at least one piece of content based upon the

deletion priority value of each piece of content stored in memory (Aubault,

[0076]-[0078], relevance criterion reads on "a deletion priority value", in that the

object with the lowest relevance criterion will be the first to be deleted).

18. As to claim 3, Aubault, Deo, and Bereznyi disclose the invention substantially

with regard to the parent claim 2, and further disclose determining at least one

piece of content having an exceeded client expiration time (Bereznyi, Fig. 6, label

218 and column 11, lines 44-51), identifying identify a piece of content having a

highest deletion priority value (Aubault, [0076]) from the at least one piece of

content having an exceeded client expiration time, and instructing instruct the

terminal to delete the identified piece of content (Bereznyi, Fig. 6, label 222 and

Aubault, [0077]).

19. As to claims 4, 23, and 33, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claim 3, 22, 32, and further disclose the

expiration control application is configured to repeatedly identify a piece of

content, and instruct the terminal to delete the identified piece of content

(Bereznyi, Fig. 6, labels 216, 218, and 222 and this is done repeatedly by the fact

that the after label 222, the flow chart progresses to Fig. 7, which in turn returns

to right before label 204 of Fig. 6), until one of memory of the terminal has

sufficient storage capacity for the at least one subsequent piece of content

(Bereznyi, column 11, lines 33-37), and each piece of content having an

exceeded client expiration time has been identified and deleted (Bereznyi,

column 11, lines 44-51).

20. As to claims 5 and 16, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claims 4 and 15, and further disclose when

memory of the terminal does not have sufficient storage capacity for at least one

subsequent piece of content and each piece of content having an exceeded

client expiration time has been identified and deleted (see claim 4 rejection), the

expiration control application is further configured to identify at least one piece of

content having a highest deletion priority value from at least one piece of content

remaining in memory of the terminal, and instructing the terminal to delete the

identified at least one piece of content (Aubault, [0074]-[0077]).

21. As to claim 6, Aubault, Deo, and Bereznyi disclose the invention substantially

with regard to the parent claim 1, and further disclose a network entity configured

to store at least one piece of content, wherein the parameters further include a

server expiration time (Bereznyi, column 11, lines 44-51 and Fig. 6, label 218),

and wherein the network entity configured to send at least one piece of content to

the terminal (Bereznyi, column 3, lines 56-66).

22. As to claim 7, Aubault, Deo, and Bereznyi disclose the invention substantially

with regard to the parent claim 6, and further disclose the expiration control

application is further configured to monitor the server expiration time of the at

least one piece of content in memory of the network entity to determine if at least

one piece of content has an exceeded server expiration time (Bereznyi, Fig. 6,

label 218), and if at least one piece of content has an exceeded server expiration

time, instructing the network entity to delete the at least one piece of content

having an expired server expiration time (Bereznyi, Fig. 6, label 222).

23. As to claim 8, Aubault, Deo, and Bereznyi disclose the invention substantially

with regard to the parent claim 1, and further disclose a terminal configured to

send the status of at least one piece of content stored in memory of the terminal

(Aubault, column 7, 54-58) such that the network entity can control the storage of

content in memory of the terminal (Aubault, column 7, lines 59-63).

24. As to claims 9, 17, 26, and 36, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claims 8, 12, 19, 29, and further disclose

the controller is configured to associate each piece of content stored in the

memory with respective parameter (Aubault, [0076] and Bereznyi, column 11,

lines 44-51).

25. As to claim 10, 18, 27, and 37, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claims 9, 17, 26, and 36, and further

disclose the controller is configured set a deletion priority value for at least one

piece of content (Aubault, [0079]).

26. As to claim 11, Aubault, Deo, and Bereznyi disclose the invention substantially

with regard to the parent claim 1, and further disclose the network entity is

configured to associate each piece of content stored in memory of the terminal

with respective parameters (Aubault, [0046] and Bereznyi, column 11, lines 44-

51).

27. As to claims 14, 21, and 31, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claims 13, 20, and 30, and further disclose

the controller is configured to send a status of the at least one piece of content

(Aubault, [0054]), such that at least one piece of content can be determined to

have an exceeded client expiration time (Bereznyi, Fig. 6, labels 216 and 218

and column 11, lines 44-51), and wherein the controller configured to delete a

piece of content having a highest deletion priority value from the at least one

piece of content having an exceeded client expiration time (Aubault, [0077]) and

Bereznyi, Fig. 6, label 222).

28. As to claims 15, 22, and 32, Aubault, Deo, and Bereznyi disclose the invention

substantially with regard to the parent claims 14, 21, and 31, and further disclose

the controller is configured to repeatedly delete a piece of content having a

highest deletion priority value (Aubault, [0074]-[0077]) from the at least one piece

of content having an exceeded client expiration time until one of memory of the

terminal has sufficient storage capacity for the at least one subsequent piece of

content, and each piece of content having an exceeded client expiration time has

been identified and deleted (Bereznyi, Fig. 6, labels 216, 218, and 222 and this is

done repeatedly by the fact that the after label 222, the flow chart progresses to

Fig. 7, which in turn returns to right before label 204 of Fig. 6).

29. As to claims 24 and 34, Aubault, Deo, and Bereznyi disclose the invention substantially with regard to the parent claim 19 and 30, and further disclose receiving at least one piece of content at a network entity (Aubault, [0032]); and sending at least one piece of content to the terminal such that the terminal receives, and thereafter stores, the at least one piece of content (Aubault, [0032]).

30. As to claims 25 and 35, Aubault, Deo, and Bereznyi disclose the invention substantially with regard to the parent claim 24 and 34, and further disclose the parameters further includes include a server expiration time (Bereznyi, column 11, lines 44-51), and wherein the method further comprises:

monitoring the server expiration time of the at least one piece of content in memory of the network entity to determine if at least one piece of content has an exceeded server expiration time (Bereznyi, Fig. 6, label 218); and

if at least one piece of content has an exceeded server expiration time, deleting the at least one piece of content having an expired server expiration time (Bereznyi, Fig. 6, label 222).

31. As to claims 28 and 38, Aubault, Deo, and Bereznyi disclose the invention substantially with regard to the parent claim 26 and 37, and further disclose associating each piece of content comprises associating each piece of content stored in memory of the terminal with respective parameters at a network entity

configured to control storage of content in memory of the terminal (Aubault,

[0033], the server (network entity) stores the list of objects (content) and their

associated statuses [0040] of the cache (memory) of the client (terminal) with

Deo, column 3, lines 8-25, disclosing remote management of memory in a

terminal).

Conclusion

32. Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP §

706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

33. A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed

within TWO MONTHS of the mailing date of this final action and the advisory

action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJD
7/6/2007

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER
7/6/7